

## **ABSTRACT OF THE DISCLOSURE**

5 A simple, efficient apparatus and method for separating layers of immiscible or partially miscible liquids useful in methods of high-throughput combinatorial organic synthesis or parallel extraction of large libraries or megaarrays of organic compounds is disclosed. The apparatus and method are useful, whether as part of an automated, robotic or manual system for combinatorial organic synthesis or purification (extraction). In a preferred embodiment, an apparatus and method for separating layers of immiscible or partially miscible liquids compatible with microtiter plate type array(s) of reaction vessels is disclosed. Another application of centrifugation based liquid removal was found for washing the plates in biological assays or synthesis on modified substrates.